COST *and* MANAGEMENT

THE OFFICIAL JOURNAL OF

THE CANADIAN SOCIETY OF
COST ACCOUNTANTS & INDUSTRIAL ENGINEERS

INCORPORATED 1920

HEADQUARTERS, 81 VICTORIA STREET, TORONTO

Telephone ELgin 8914

Vol. 7 DECEMBER, 1932 No. 12

. . CONTENTS . .

COST SYSTEM FOR STEEL CANISTER INDUSTRY.
Donald Peddie 354

DISTRIBUTION OF ADMINISTRATIVE EXPENSES 373

CHAPTER NOTES 379

TREND OF PRODUCTION COSTS 381

PERSONAL ITEMS 381

COST LITERATURE 382

NEW BOOKS 382

INDEX TO CONTENTS, VOLUME VII 383

Subscription price to non-members, $5 a year. Single copies 50 cents. Members desiring 5 copies or more of a single issue may obtain them at 25 cents each.

Cost System For Steel Canister Industry

By DONALD PEDDIE,

Shawinigan Engineering Co. Ltd., Montreal.

(Continued from November)

The totals of each item of factory overhead are posted to the summary of distribution to departments, to be distributed on some predetermined basis. This basis may be the actual work done as shown by the payroll analysis, or an arbitrary one such as area of floor space, the number of lights etc,, with regard to heating, lighting. These charges include the service departments too. When all expense is allocated it is required to charge the service departments to production. Substation cost is allocated on the basis of power used, rent and taxes according to floor area and so on. This is clearly shown on the form attached. Therefore the actual overhead for each production department is obtained, and is compared with the distribution during the period of expense by the basic unit method in each department—the labour hour and the machine hour.

Should the amount allocated to manufacturing expense be higher or lower than the applied expense an adjustment is made to manufacturing account or profit and loss. Unless the differences in the department concerned are very large, no difference is made in the basic rate for the ensuing period.

When rates are compared for differences, careful note should be given to variable items, such as credit for sale of scrap. In order to compensate those charged with the whole cost of material, when it is known scrap is present, a credit is made to the overhead of the machine grew older; the choice of method proved quite a fair one. credit to galvanizing department.

Special Items of Overhead Depreciation

On examination of all plant, it was found that all items could be given an allotted span of life. Therefore a capstan lathe was given 6 years, and though the machine was good for 10 years, new improvements made it imperative that new machines should be got or production prices would not be competitive. This was the case with the majority of items, obsolescence was the principle consideration. The short term of life, and low salvage value made it decisive to use the straight line method of depreciation, as a percentage method of reduction would give uneven costs. Moreover the work put out by the machines did not vary a great deal between the first and last years of its life as the fixed percentage on diminishing value would bring out. Maintenance costs did not increase a great deal as the machine grew older, the choice of method proved quite a fair one.

The details of each machine were set up in a plant ledger, showing among other things, the purchase price, estimated salvaged value, years of life, amount written off each period, and location. Space was allotted for writing off this amount to the fixed charge schedule. This amount was quite simple to calculate, the purchase price less salvage value was divided by the number of years, thus giving the yearly amount of depreciation, which in turn was divided by the number of months in the year, and gave the amount to be shown on the depreciation schedule each month. From the schedule all departments were charged with the amounts chargeable (arrived at from location) and distributed on the monthly overhead distribution, and was ultimately applied to production by the basic unit rate.

Dies & Tools.

To account for this item was one problem—where to charge it was another. The desired way was to charge it to the production order, but one or two considerations blocked this move. When a quotation is made to a prospective buyer for items requiring tools and dies, the selling price is made to include all cost of dies and tools.

At this point separation has to be made between the dies made for one order that may do several companies, and specials that only do for one company. Dies and tools that can be used for other companies are charged into overhead, but special dies and tools are a big consideration taking into account the cost and limited use. Large companies use their container as advertising material as well as its original purpose, and for this are willing to pay higher to get the name stamped on it, but this advertising would be no use unless they had a large clientele and plenty of opportunity to show the name in ordinary usage. Consequently orders are large, attendant with keen competition, so keen as not to permit a fraction to be added to the cost of the drum without any extras; it is in a case like this that the problem of tools and dies comes in.

After careful consideration it was agreed that it would not be good publicity for the firm if they did not produce any orders for big concerns; it was therefore decided that tools and dies on orders of this type should be charged to overhead. An estimate was therefore made of the total cost of tools and dies for the year and an amount written off to overhead each month. When actual cost is known it is debited to this account, the monthly write-off being then adjusted. In this way large orders could be taken requiring special dies. All charges for dies and tools could therefore be charged as made, and so do not appear as an asset in the books of the company.

To diverge a little, this seems like taking orders to distribute overhead, which is regarded as bad business, but there are so many arguments for and against, that it would take pages to write. Sufficient to write that as orders were always large, a trial was always made to make these orders pay, by putting through the same type in large numbers, as the workers becoming so used to them could speed up production. It is in this way that these orders can pay through time.

The cost of these dies and tools are charged to overhead of the drum shop, as all production passes through this department. Whether a portion of the cost of these special dies and tools could be charged to advertising is contraversial.

Superintendence, Supervision, Engineering

As previously mentioned, the works are in charge of a superintendent, who has a department to do all he requires. This department may be broken up into engineering, planning and production, operation and superintendence, and maintenance. All charges for these departments within a department are kept in one total. At the end of the period a basis of allocation is supplied by a person deputed by the superintendent to make the allocation. This allocation is signed by the superintendent, the whole group of expense being called Management and supervision. Any expense that is directly attributable to one class of expense is charged to it by means of the symbol.

This group of expense includes wages and expenses of the various foremen and assistants.

Scrap Material

Under the heading of material, it was stated that all sizes of sheets required could not be stocked (sheets for every size) so certain sizes were chosen that would do several sizes, therefore scrap is unavoidable. This scrap has been cut down to a minimum by placing the authorization to cut sheets in charge of the planning department, who have charts of the best sheets to cut for all sizes of drums. If the scrap is large enough for use it is returned to stores on a stores returned sheet and the production order is credited, but if it is too small it is put on the scrap bundle, and entered in the stores ledger as scrap material. When scrap is sold it is withdrawn from stores, the proceeds of scale being a credit to the overhead expense of the department responsible for the scrap. The production orders have been charged for the whole sheets where scrap is concerned, but allowance is therefore made by crediting the department with the proceeds of sale, therefore the production order gets a slight compensation through reduced overhead, although this is also spread over to orders not having any scrap.

There are three kinds of steel scrap,—black, leadcoated and tinned. The first is obtained when the sheets are cut first, the other two, when the sheets are cut after coating. Some criticism may be offered, that all sheets are not cut first, but the double handling it involves would be more than the saving in the coating of the scrap. Moreover, the higher price received for them makes it immaterial whether the sheet is cut first. As a different price is obtained for each kind, they are kept separate, and sold each month.

Scrap is charged to stores at the scrap price, and is entered on each load being added to the bundle.

Spoiled Work

Spoiled work is negligible, but the amount is obtained from the cost sheet of the item up to the time it was spoiled, and if any scrap value is known, it is returned to stores at that price, and the difference charged to standing order of the department responsible.

With defective work, there are slight leaks found when drums are tested. This is got over by keeping one man, a sort of jack of all trades, to do the repairs, when the inspectors throw them out. If the job is too big for him, the inspectors write out a defective report and all subsequent work is noted on this and charged to standing order of department responsible. This is only on drum work. Machine work has been already inspected for piecework rate.

Service Departments.—Tool

Much has been written about this department's work under the heading of tools and dies, and the method of charging the cost of the tool room to production only remains to be explained.

The tools room is divided into tow parts—the making of tools and dies, and the maintaining of all buildings, plant and all work necessary to the upkeep of the machinery. The maintenance part is under the charge of a foreman who sees to getting all charge numbers and information required. Tools and dies are manufactured against production and standing orders and like all other departmental orders the necessary elements of cost are kept distinguished on each shop order. Overhead rates have been established for maintenance and for tools and dies, application being made to production and standing orders on the basic rate. Any difference between this and the actual is adjusted along with the other rates, through profit and loss account.

These figures are then posted to the cost sheet for each job produced or to the standing order summary.

Maintenance

All maintenance is done against orders made out by departments requiring the work, and signed by the superintendent. These are sent to the tool room and are handed to the maintenance foreman. A record is kept in the daily time sheets and at the end of each job a charge is made to the department with the overhead added. The reason for putting maintenance under the tool room was that so much hand labour was used in making tools that the machines were not always in use and could be used by the maintenace men if required.

Power

Power is purchased from the power company. For those departments that require it, meters are installed at each production: an accurate record of consumption is therefore made. For example, the drum shop has one meter for the whole shop but the machine shop has one for each group of similar machines and is chargeable to each machine on the number of hours run. This is required in order to obtain the machine hour rate. Power is therefore charged on a consumption basis. The expense of upkeep to the substation is of course added to the cost of power as well as the operation.

Steam

Steam is employed for heating and allocated on the same basis as rent. It includes the cost of fuel, operation and maintenance. Those departments which have furnaces do not require steam heat and are therefore not charged with any amount.

Charging Service Departments Production.

All charges to substation and heating are shown charged direct to these departments on the monthly overhead summary sheet. On obtaining all charges, the total amount is charged back over the departments using these sources. Other services such as stores, finished goods and inspection are charged back on an agreed basis to the production department, therefore all overhead charges both variable and fixed, are allocated to each production department. The toolroom can hardly be called a production department, neither is it altogether a service department, but the simplest method is to treat it as a production department. Overhead for this department has been charged out on a fixed basis to both production and standing orders. Therefore as shown on the summary each department has its cost of tools and dies in its overhead total, provided these are not required to be charged direct to the production order.

Sales Expense

This expense had no outstanding case in which to aid in the settling of a distribution basis. All sales effort is done for the plant as a whole, there being only one class of product. Special trips and expenses are incurred for some orders, but generally advantage is taken of the travelling to make district calls. Therefore the sales expense must be distributed on a basic unit. Upon this fact a discussion arose as to whether more sales effort was required to sell higher priced articles, and a slight leaning towards this theory was felt. Application of sales expense on the cost of manufacture was suggested, but it was pointed out that generally the higher priced

15. GALVANIZING DEPARTMENT

COST SHEET FOR.....WEEKS ENDING.....19...

		Week Ending @	@	@	@
	MATERIAL				
Spelter	Inv'tory at B'ginn'g of Period				
	Requisitioned				
	Inventory at End of Period				
	Consumed				
Salamoniac	Inv'tory at B'ginn'g of Period				
Muriatic Acid	Requisitioned				
"	Inventory at End of Period				
"	Consumed				
Coal					
Miscellaneous Supplies					
Less value of Hard Spelter to Scrap A/C					
Total Cost of Material Used					
Payroll—Direct		Hrs.	Hrs.	Hrs.	Hrs.
" Indirect					
Overhead—per Direct Labour Hour		Hrs. @	Hrs. @	Hrs. @	Hrs. @
Total Production Cost					
Production.					
Charge		P.O. Weight	P.O. Weight	P.O. Weight	P.O. Weight
Weekly Rate					
Last Weeks Rate					

16. FOUNDRY DEPARTMENT

Production and Labour Report For Week Ending.....19....

DATE	CAST IRON										BRASS									
	½"		1"		1½"		2"		4"		1"		1½"		1¾"		2"		3"	
	Bung	Ring	Bung	Ring	Bung	Ring	Bung	Ring	Bung	Ring	Bung	Ring	Bung	Ring	Bung	Ring	Bung	Ring	Bung	Ring
Total Number																				
Weight																				#
Direct Labour																			$	
Indirect Labour																			$	

Total Direct Labour	$	Weight of Cast Iron Castings		#
Cost per lb. Cast. (Labour Only)	$	Total Indirect Labour	$	
Total Direct Labour	$	Weight of Brass Castings		#
Cost per lb. Cast. (Labour Only)	$	Total Indirect Labour	$	

17. FOUNDRY DEPARTMENT

COST SHEET Week Ending .....19....

Cast Iron					Brass				
Direct Material:—					Direct Material:—				
Pig Iron					Brass				
Scrap					Less amount of filings returned				
Total					Total				
Sundry Material:—					Sundry Material:—				
Sand					Sand				
Limestone									
Coal					Coal				
Miscellaneous					Miscellaneous				
Total					Total				
Total Material Cost			=	per lb.	Total Material Cost			=	per lb.
	(	Direct)				(	Direct)		
" Labour "	(	Lab./Hrs.)	=	per lb.	" Labour "	(	Lab./Hrs.)	=	per lb.
" Overhead "	(	%)	=	per lb.	" Overhead "	(	%)	=	per lb.
			———	——— per lb.				———	——— per lb.
			$———	$——— per lb.				$———	$——— per lb.
Charge	P. O. No.		Weight	Amount	Charge	P. O. No.		Weight	Amount

18. COST SHEET

Customer
Article

Their Order No.
Quantity
Specification No.
Average Weight
Of Each Item

PRODUCTION ORDER NO. P
DATE OF ISSUE
DATE OF COMPLETION

MATERIAL						LABOUR						OVERHEAD					
Date	Requisition No.	Item	Cost	Date	Check No.	Dept.	Direct Labour Hours	Machine Hours	No. Approved	Cost	Date	Dept.	Direct Labour Hours	Machine Hours	Rate	Cost
				Summary			Unit	Cost					Material				
													Labour				
													Overhead				
													Coating				
													Foundry				
													Cost to Mfre				
													Sales Adm'tr. Fin'ce				
													Total Cost				
													Profit				
													Selling Price at Works				
Coating						**Foundry**							Freight to		Rate		
Drums	Weight	Total	@	Cost		Item	No.	Total Weight	@	Cost			Selling Price D/O Station				
													Price Quoted				
													Terms				
													Net Price Received				

Posted ..... Checked ..... Certified ..... Approved .....
Supt.

19. SALES BUDGET
1932

Month	Total	Size of Drums—Gallons					
		1—3	4—6	5—8	9—12	15—25	30—up
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
Total							

20. CASH BUDGET
1932

Month	Sales Value	Collections Less 1.75%	Other Income	Total Cash
Accounts Receivable Jany.				
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
Total Sales Value				
Less 1.75%				
Total a/c Paid				
Accounts Receivable Jany.				

21. MANUFACTURING AND OPERATING BUDGET
1932

	Total	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Material													
Labour													
Prime Cost													
Overhead:—													
Variable													
Fixed													
Cost to Manufacture													
Sales Expense													
Cost to Make and Sell													
Administration													
Financial													
Total Cost													
Profit													
Sales													

22. MASTER OPERATING BUDGET
1932

	Sales	Net Profit	General Operating Cost	Cash Receipts	Monthly Cash Debit	Monthly Balance Credit	Cash Balance
Accts. Rec. Jan. 1/32							
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
A/c Rec. Jan. 1/32							
Final							

articles took longer to make, though not as great as the disparagement between sizes, as price would suggest, and it was felt that direct labour hours of the drum shop would be a better basis of distribution. To illustrate this point, if a one and ten gallon drum are taken the price for each might be 50c and $2.00 respectively. Now the direct labour hours may be 1/3 on the one gallon and one hour on the 10 gallon. If sales expense were charged on cost of manufacture the ten gallon would absorb four times as much as the one gallon, but if taken on direct labour hours would only be about three times. The latter way would appear to give a much truer picture considering general sales effort.

Administration Expense

This concerns the salaries and expenses of an administration that cannot be allocated directly to any part of the plant, and is composed mostly of executive salaries and expenses, general office salaries and expenses. It was decided that the same basis as the sales should be used, namely the direct labour hours, as this would give a fairer basis than any, though generally speaking as much administration effort is required for the small sizes as the larger ones.

Financial Expense

Reserve for bad debts, discounts, bank interest etc., are allocated on the direct labour hour basis in line with administration.

Process Costs

As stated the dipping departments (leadcoating, tinning and galvanizing) have process cost records. This is easily understood as the amount of material adhering to each drum varies and no accurate weight could be obtained for each individual order, without making the method too costly. Sheets are leadcoated before manufacture, sheets can be tinned before manufacture or the complete drum tinned after manufacture, and the drum is galvanized after manufacture. This describes the method of using the dipping pots. An order might call for one or the other, but obviously a leadcoated drum could not be galvanized, nor a galvanized drum tinned. Therefore a buyer has a choice of three coatings and each process must be kept separate. In reality it is not a process cost, as there is only one process, but a department cost.

To illustrate the method employed to ascertain the cost, the galvanizing department will be taken, the leadcoating and tinning being of the same nature and instead of hard spelter for re-sale, lead and tin ashes respectively.

Galvanizing Department Cost as Illustration

The chief item in galvanizing is spelter which is purchased in wagon loads, delivery being made direct to the galvanizing shop, as explained under material. A receiving slip is made out for the weight as shown by the railway company's tickets and sent to central stores where it is entered in the stores ledger and the receiving slip is sent to purchasing. Coal is delivered in the same way, only one large pile is kept suitable for all coal using departments. Muriactic acid, salamoniac and other supplies are delivered by truck to the shop. Requisitions are made and signed by foreman for all supplies and these are sent to central stores.

Articles for galvanizing are pickled first then dipped in the galvanizing pot. They are then examined and if correct are passed

for weighing, the finished weight being taken as the production weight. Ten per cent of the number of drums put through are weighed this being taken as an average of the order. All dipping is finished from day to day, so that no work-in-process inventory is required for these departments.

As the cost sheet for this department is made up weekly it is necessary to get the amount of material in the galvanizing bath and pickling bath, this being done by measurement. The bath is measured (inside measurement) in cubic inches and the weight is known of spelter, thus the only varying measurement from week to week is the height of spelter in the bath and to find the weight of material at the end of any period is the matter of one calculation.

The residue of spelter is hard spelter which is taken from the bath each week, this being weighed and laid aside for re-sale at the end of each month. The amount of hard spelter taken from the bath each week is credited to production at the market value and charged to hard spelter account, and when the month's accumulated weight is sold the account is credited, any difference being corrected through the overhead of the department on the monthly distribution. In this way the production cost of galvanizing is as accurate as possible. The price received for the hard spelter does not vary a great deal in normal times, that this treatment of residue is perfectly fair.

It may be open to criticism that no storekeeper is placed over the spelter, acid, etc., and sending debit and release sheets to central stores. This may be more readily understood if it is considered that a storekeepers principle job is to keep records of receipt and disbursements of material, though he generally keeps an eye on all materials and prevents pilfering. For a worker to take spelter, tin or lead would be a waste of time as he could not use it at home and could not carry away sufficient to sell without being noticed. The method of sending material direct to departments has proved quite successful.

Foundry Costs

The cost of operating the foundry is kept separate from the other costs. Castings are made both in brass and iron and consist of bungs and rings. The method of requisitioning is similar to the galvanizing department only the material is pig iron and scrap brass these materials being delivered direct to the foundry from the purchaser. Requisitions and receiving slips are sent to the cost and purchasing departments via the storekeeper who has entered them in the stores ledger. The requisitions are then posted to the cost sheet and the details of the cost of operation are worked out each week. Wages are paid at hourly rates and posted to the cost sheet.

Record of work done is made by each man, who keeps a careful note of sizes of bungs and rings, and the material they are made of.

All other supplies are charged direct to the department from store, leaving only the overhead to be added to complete the cost. This rate is predetermined and added to every week's cost sheet.

Charges for labour, material and overhead are added together and divided by the production weight to give the rate. When the rate is obtained the various production orders are charged therefore there are no carry over charges with regard to the foundry. All charges are made to production orders weekly and posted to the cost sheet of that order.

This is a small department making bungs and rings all the time, the only difference being the size, and a system as above is accurate enough.

Cost Sheets

The cost sheet is the climax to the detail work. On the planning department sending out production orders, they send a copy of the order to the cost department, who make out a cost sheet for each order, with the necessary details shown. This sheet is divided to show all the elements going to make up the cost of producing the product, including administration and financial expense.

From the payroll analysis the labour is extended for each day on the various cost sheets, and from the material requisitions the material cost is posted each day. After all posting has been done the amount posted to the various production and standing orders would equal the amount of labour accrued, and the amount of material requisitioned for the day. It is understood of course that these entries are made the day after they have taken place. Overhead is now applied to the orders on the basis predetermined monthly or at any period. This amount of overhead is charged to production and standing orders on the basis of direct labour hours or machine hours, whichever apply, and is charged to applied manufacturing expense account.

When the work is done and the goods have gone into finished goods warehouse, the production order is kept on file till the end of the week to make certain all charges are through and the amount charged from the cost sheet to finished goods account. The costs of dipping shops and foundry come through weekly and no charge can be made to cost sheets until the end of the week. When goods are finished the cost sheets are taken from one file to another where they remain till the rates or charges from these shops are all posted to the cost sheets, on which work they have been engaged. The production order is now filed away and is ready for comparison on all repeat orders. The total amount shown on uncompleted cost sheets represents the work-in-process inventory at that date.

The amount of sales, administration and financial expense applicable to each order is shown but is naturally not included in the unfinished work, nor is it included in the amount transferred to finished goods.

It should be noted that there are no inventories of work-in-process in either the dipping shops or foundry.

Financial Records

In order to tie-in with general books of account three separate accounts are kept in the general ledger—(1) Raw materials (2) Work-in-process (3) Finished goods.

All purchases of raw material are controlled by stores except in the case of special maintenance parts. Therefore a column is kept in the voucher register for raw material and posted to account No. 1. Stores releases are totalled daily and kept for one month when a memo is put through to the accounting department of the amount of raw material used. The balance on the raw material account gives the amount of inventory at that date. Regarding stores releases, these are divided into direct and indirect material in the cost department, but are kept as one in the general books.

The amount of material consumed is posted to work-in-process account, and the direct labour is posted next. This is posted weekly

as debit to work-in-process, and is included in the total amount posted to accrued payroll.

Applied manufacturing is then posted to work-in-process; any adjustment between the actual and applied is corrected through manufacturing account. The applied expense is obtained from the cost sheet and the actual from the summaries.

Cost of Production

The cost of production for any period can be obtained from the cost system. Below, is given an illustration of how this could be done, and is much clearer than words.

Completed cost of orders still in process at beginning of period		$5,000
Amount of cost of orders in process at beginning of period		3,000
Amount of cost of these orders applicable to this period		2,000
Cost of orders begun and completed this period		95,000
Amount of cost shown on uncompleted cost cards at end of period	$12,000	
Less Amount of cost shown on uncompleted cost cards at beginning of period	1,000	11,000
Amount of Cost of Production this period of Finished and Part Finished goods		$108,000

To obtain the above figures and set-up, a carefully arranged system of filing cost sheets is required, and has the advantage over the general books, that it can be made up for any period and at any time. Certainly on cost sheets requiring or waiting charges from dipping shops or foundry would have to be estimated, but this could be done fairly accurately. The above method is more accurate than the general books as the carry over from one period to another would require to be estimated in the general ledger as to the amount applicable to the period under discussion.

Illustration of Financial Accounts connected to Cost System

The following accounts are some of the accounts required in order that the details in the cost system will tie-in with the general accounting, and substantiate in total the amount shown in detail, charged to general operation of the concern.

RAW MATERIAL

1932 Mar. 31	To Balance	$12,019.08	1932 Mar. 31	By Releases to Work-in-Process	$40,428.80
	Purchases	36,345.22		Balance	10,518.40
	Freight	2,582.90			
		$50,947.20			$50,947.20
Apr 1	To Balance	10,518.40			

WORK IN PROCESS

Mar. 1	To Balance	$8,659.34	Mar. 31	By Finished Goods	$109,402.30
31	Raw Materials	40,428.80		Maintenance	
	Direct Labour	62,896.35		Work	19,283.94

	Applied Manufact. Expense	31,117.41		Sales-Samples	1,462.86
				Balance	10,952.80
		$141,101.90			$141,101.90
Apr. 1	To Balance	10,952.80			

FINISHED GOODS

Mar. 1	To Balance	$5,432.10	Mar. 31	By Cost of Shipments	$112.157.28
31	To Work in Process	109,402.30		Stores	548.20
				Balance	2,128.92
		$114,834.40			$114,834.40
Apr. 1	To Balance	2,128.92			

APPLIED MANUFACTURING EXPENSE

Mar. 31	To Mfg. Expense	31,117.41	Mar. 31	By Cost sheets debited to Work-in-Process a/c Dept. 1	$10,489.62
				2	7,120.25
				3	9,294.02
				4	209.65
				5	340.26
				6	270.29
				7	320.72
				8	159.76
				9	2,912.84
		$31,117.41			$31,117.41

MANUFACTURING EXPENSE

Mar. 31	To amount of expense as per summaries		Mar. 31	By applied Manufacturing Expense	
	Dept. 1	$10,388.22		Dept. 1	$10,489.62
	2	7,040.32		2	7,120.25
	3	9,316.30		3	9,294.02
	4	299.07		4	209.65
	5	382.29		5	340.26
	6	278.83		6	270.29
	7	330.95		7	320.72
	8	157.77		8	159.76
	9	3,122.16		9	2,912.84
				Balance—Mfg. a/c	198.50
		$31,315.91			$31,315.91

PART 3—STANDARD COSTS

The following notes are a brief description of standard costs with reference as to how they may be applied to the actual cost system discussed in Part 2. Owing to limitation of words and the large number required for Part 2, this Part can only be lightly sketched.

Installing Standard Costs

The installation of standard costs falls into two broad groups and is subject for discussion in the light of varying conditions of each plant or concern. These two broad groups are:—

(1) Standard Costs as a measure;
(2) Standard Costs as an ideal.

In choosing No. 1 in preference to No. 2, the benefit to the management would be greater by using it than using an ideal standard representing their desired aim. Standard costs when fixed must remain so until great differences arise which necessitate their change as comparison of anything to a shifting base is futile.

Detailed Standards

The principle materials are bought on period contracts and the fixing of standards for material provide little difficulty. Therefore, the stores ledger can be kept on standards, each requisition being priced from it. When the requisition is received in the Cost Office the actual price will be marked on it (should there be any change) and the standard cost posted to the cost sheet, thus at the end of the period the actual and standard cost of material consumed is known. A further step is, that for each production order, the standard cost of materials is known and is therefore compared with standard and actual cost of material consumed.

Direct labour is charged to the jobs at standard rates each job or operation having a set price, so that when the detailed time sheets are received they are extended at the standard rate and charged to the job. The detailed time sheets agree with the daily time cards in time only, as a worker may be paid differently than the way the standard is fixed.

Overhead is applied on standard rates, having been closely examined as to their suitability and charged to jobs on the direct hour basis or machine hour basis. These are then totalled for the period and compared with the actual overhead.

In summing up, all cost sheets are charged with standard costs and only when large differences occur which are likely to be present for a period, are standards changed. By comparing these standards with the actual costs, standard costs are being used, it might be said, as a measure of efficiency.

Illustration of Comparative Statistics

The following comparisons and notations will give a good idea of the information required each period, and will show one way how standards can be of use to the management.

Material Comparisons

The figures for material are obtained as outlined above.

Material consumed at actual cost	Material consumed at standard cost	Material Price Ratio
$5,510.00	$5,800.00	95.

Material consumed at actual cost	Standard cost of Materials required for production	Material Cost Ratio
$5,510.00	$5,450.00	101

From these two sets of figures it is known that the price of material was improved upon, but more material had been consumed than was allowed by standards. The material usage variation is

therefore 101/95—106.3% of the standard, was used at a price of 95 or 6.3% more material was used at 5% reduction of price comparing the actual with standard.

Labour Comparisons

The figures for labour would be obtained from the payroll.

Actual payroll direct labour	Standard direct labour cost of production	Labour cost ratio	89.3 was or efficiency realized
$8,800.00	$7,840.00	112	

Before taking this as the actual effectiveness of labour, the labour ratio is subject to two influences—the variation of output per man and the variation in wage ratio paid.

Effectiveness of Labour

Standard direct labour budget cost of capacity	Standard direct labour cost of production	Labour output to capacity ratio
$9,200.00	$7,840.00	75

Direct labour hours to budget at capacity	Actual man-hours direct labour only	Ratio of man-hours to capacity only
20,000	17,000	85

From the above figure it is learned that it took labour 85% in time (compared with capacity) to produce 75% in quantity (also compared to capacity). Labour effectiveness is $100 \div 85/75 = 100/113 = 88$. For a ratio of actual to standard hours of 113 a ratio of 112 was paid, therefore the wage level is 112/113, which means that wages have been paid on the same basis as when the standards were set.

Summing up it is shown that 113% in hours at 100% in wages causes the labour cost ratio to be 112%.

In a similar manner machine effectiveness can be completed.

Overhead Comparisons

Figures for this comparison are taken from the monthly overhead summary and applied expense to cost sheets and to standing orders.

Actual overhead as per summary	Applied or standard overhead cost of production	Overhead cost ratio
$3,960.00	$3,600.00	110

The actual overhead cost of 110% of that applied to production but is influenced by ratio of expenditures and variation in degree in which the capacity is utilized.

Therefore if overhead is applied on direct labour hour basis, it is shown that overhead rate is 120 when labour is 113 which given on overhead rate of 106 or the actual expense is 6% above that allowed for in standards.

Sales, Administration and Financial Expense

The expenses can be set to a standard rate on examining the actual cost to direct labour basis for several periods.

PART 4. BUDGETARY CONTROL

Purposes of Budget

The budget is an instrument being made increased use of to aid organization control. It seeks to gather together all forecasts

for the future and examine them with previous operations and general conditions. It provides an objective for the organization to aim at, but in no way supplants the human element. Actual or standard costs play an important part in the compilation of a budget which should be framed to provide periodic examination with actual results.

Sales Budget

The key to budgetary control is perhaps the sales budget, as naturally all business endeavor depends on the volume and amount received for sales. This budget is worked out with the aid of the sales manager. The industries catered for as explained in Part 2, would be shown as to the amount of orders expected from them, the sizes of drums they usually take and the period of year they require their orders. Thus it is known that the paint industry will be most active in the spring as will the bitumastic industry. Foodstuffs such as syrup and treacle will be higher in the winter months than in the summer and so on. Considerations are given to all factors which might influence sales, such as general conditions, failure of one big branch of industry to regain itself and several other influences.

Cash Budget

The cash budget is based on the sales budget and shows the amount of cash expected to be received from that given volume of sales and the amount of discount required to be given to obtain quick payments.

Operation Budget

The third budget is the operation budget and deals with production, sales effort and administration. It is drawn up on the basis of the sales budget and shows the expense of producing the volume of sales estimated.

Master Budget

The master budget shows the working of the organization as a whole, estimated for the next period. On it is shown the sales, the return from sales, the cost of production, showing a profit or loss for the period. This budget can be arranged to suit different requirements.

The above is a rough outline of the compilation of a budget. The cost system employed can play an important part in showing how accurately the budget is forecasted. In only one item—cash, it can be of no avail.

Distribution of Administrative Expenses

SOME time ago a questionnaire was issued from our Society's office, on distribution of administrative expenses. The inquiry was made on behalf of a member, whose question was raised as follows:

"We have had occasion to question the policy affecting the distribution of expenses between the four controlling divisions, namely, Manufacturing, Administrative, Selling and Financing, the point being raised as to the recognition of the practice affecting the distribution of so-called administrative functions of the following groups:

(1) General executive, affecting salaries and expenses of the President and Vice-President.
(2) General accounting.
(3) Accounts receivable.
(4) Accounts payable.

(5) Cost and payroll.
(6) Statistical and tabulating.
(7) Production planning.
(8) Purchasing.

"We might also include with these, supplementary functions affecting:

(9) Steam plant.
(10) Mechanical and general maintenance.
(11) Raw stock and general stores.
(12) Janitors and watchmen.

"The definite point that is raised is the general practice in distributing and allocating the total expenses involved in each group to the major expense divisions and the manner, when and if distributed in Manufacturing expense, of redistribution to the operating centres.

"For the purpose of identifying the methods of our own organization, we have endeavored to relate all functions as closely to the point they affect as possible, namely, expenses involved in Accounts Payable, Payroll, Cost and Purchasing groups being charged practically all to manufacturing operations as supplementary departmental burden distributed largely on a direct labor basis or on the basis of past experience in accordance with the service rendered.

"In connection with executive salaries, these in turn have been applied in a general way in accordance with a reasonable estimate of the application of executive effort to the three groups. Manufacturing, Selling and Administrative. Steam plant costs have been distributed both as supplementary manufacturing charge where the service affects direct manufacturing operations and a supplementary estimate for plant heating distributed on a radiation basis, the estimates being created primarily by the steam engineer."

Replies

It is not practicable to make a statistical summary of the replies, owing to the nature of the questions. But the following representative answers will at least indicate, for our members and readers, some of the methods in use.

Company A

"It has always been my practice to distribute all expenses over the departments or products in proportion to the benefit which accrued to each from the expenses in question.

"I am in full agreement with the method of charging items 5 to 8 in accordance with the system outlined except, of course, that part of No. VI, 'Statistical and Tabulating' might belong to the Sales Department.

"As regards the charging of a proportion of the accounts payable to production this is a somewhat novel idea, but I can see where it might be justified on the basis that most of the expenses occurred in this department arise directly from the purchasing activities of the business. On the same basis I presume that the accounts receivable should be charged to the sales department. Nevertheless, I am inclined to follow the system which is in general use of charging these to the financial expenses of the business as they are under the full control of the financial head, and have a much closer relation to the proper direction of the financial policies than to the function of any other department.

"The invoicing department I have always considered properly chargeable to the sales department.

"One other point which is not brought out is the responsibility for finished stores. The distinction I generally make is that if pro-

duction schedules are based upon estimates of the sales department, then the sales department becomes responsible for the product as soon as it is completely finished, but if production schedules are based upon the interests of the manufacturing division then responsibility for finished stock rests with it.

"In the first case the proper proportion of all building up-keep, such as taxes, insurance, heat, janitors and watchmen, depreciation or rent, etc., would be charged to the sales department on the basis of the space occupied by them or the value of the property used by them, and insurance on stock would be divided according to the values of the finished stock and the other stores. Direct charges to be born by the sales department would also include the employees of the finished stock department and the shipping department.

"One other division I generally make is in segregating those expenses which are applicable to the financial functions, and those which are due to the corporate form of the business. In the latter class are such items as stock transfer expenses, corporate taxes, corporate officials and employees not directly engaged in production, finance or sales activities, legal expenses on corporate matters, and other similar expenses, which do not effect the company's operations.

"The last division I use follows the usual classification of financial receipts and expenses, as follows: Interest Received or Paid; Bank Charges; Bad Debts; Etc."

Company B

"There is no one answer to the specific point raised as to the general practice of allocating the expenses enumerated by your questioner to the four controlling divisions designated Manufacturing, Administrative, Selling and Financing.

"Everything depends upon the basis which is adopted in absorbing actual overhead in the costs, e.g., if a standard overhead rate were adopted based on the direct labor hour to cover all actual overhead, then such standard rate would represent a cross-section of all overhead expense, and if the standard rate so applied fell short of the actual overhead the shortage should be written off to Profit and Loss. The shortage might have been due to:

(a) Too low a standard
(b) Insufficiency of work
(c) Wasteful overhead
(d) Other similar factors or a combination of them.

"In my opinion it is immaterial whether you have one rate for Manufacturing, another rate for Administrative, still another for Selling, and yet another for Financing. One rate may be as good as several rates, but all the rates may be wrong because no two persons will agree about the same allocations. When one rate is adopted and the standard overhead exceeds, or equals, or falls short of the actual overhead, then such difference, if any, should be transferred to Profit & Loss.

"There is no more uniformity in costing than there is in accounting. Costing systems should be designed to fulfill the purposes which the board of management of the business deem necessary. This does not mean that the cost accountant should not have first class ideas and suggestions of his own.

"Apart from the above to be constructive I should allocate the groups as follows:

(1) Add a portion to Financing
(2) Administrative
(3) Administrative

(4) Administrative
(5) Manufacturing and Administrative
(6) Administrative
(7) Manufacturing
(8) Administrative
(9) Manufacturing
(10) Manufacturing
(11) Manufacturing
(12) Manufacturing

Company C

"We treat the various items as follows:

Nos. 1, 2, 3, 6 & 7—These are charged to administration expenses and in turn half the administration expenses are treated as selling expenses.

Nos. 4, 8 & 11—The expenses of these are distributed in accordance with the raw stock and general stores used by the different departments of the mills.

Nos. 5 & 12—are charged to operations and distributed against the various producing units in accordance with an estimate of the use made of this department.

No. 9—The costs of this section are distributed in accordance with meter readings.

No. 10—Distribution is in accordance with actual labour and materials used by the various operating units."

Company D

"The following is a brief outline of the method we use:—

"Items 1, 2 and 3 are charged to administrative expense. Administrative expense is not charged directly to cost of production.

"Items 4, 5, 6, 7, 8, 9, 10, 11, 12 are shown as manufacturing expense and are charged to the production departments on the following basis:—

Items 4, 5, 6, 7, 8—Productive Labour
Item 9—Radiation
Item 10—Number of machines and estimated repair
Item 11—Poundage used after making adjustment for bulky goods
Item 12—Floor space

"The total overhead for each department is then charged to cost of production on the basis of direct labour.

"From details received with the enquiry submitted we would say that generally we follow the principles as outlined therein."

Company E

"We cannot answer your questionnaire regarding the distribution of certain expenses by a straight "yes" or "no", but we will do our best as follows:—

(1) The salary and general expenses of the officers of our company, such as president, vice-president, secretary, treasurer, comptroller, are included in general administration expense, in our general accounting.
(2) The salaries and all expenses in connection with the general accounting department is included in general administration expense.
(3) All expenses in connection with accounts receivable, so far as salaries and collection expense is concerned, is included in the branch house administration expense of the district in which the accounts receivable are kept, namely at Vancouver, Winnipeg, Toronto and Nontreal.

(4) The salary and expense in connection with accounts payable are included in our general administration expense, because accounts payable are handled from our general office.
(5) The salaries and expenses in the cost and pay-roll department are included in the manufacturing expense of the factory, where these departments are located.
(6) The statistical and tabulating department is at the general office, and is included in general administration expense.
(7) The production department in our organization is part of the factory administration unit, and is included in the factory administration expense of that particular plant.
(8) The purchasing department is part of the manufacturing expense of the factory, where it is located,—that is, we have a purchasing unit at each of our two plants, having decided some months ago that a general purchasing department in our business, where the class of material used is different in the two plants, (excepting maintenance material) is an expensive way of handling it, and not nearly so effective from a service standpoint as having a purchasing department located at the plant.
(9) (10) (11) and (12) all these items in connection with the factory end of the business is included in what we classify as manufacturing service units, and is part of the manufacturing burden in our factory costs.

"When we make reference to general administration expense in this letter, we do not imply that this is in turn distributed over different units of the business on a pro rata basis, but it is split between the two main divisions of our business at the end of the accounting period in a lump sum. Each of these two divsions of our business has a budget for a total manufacturing cost, which includes all direct administration expenses located at the plants, which includes No. 5, No. 7 and No. 8 above, and such fixed charges on the factories as insurance, taxes and depreciation. There is a sales and distribution cost, which includes travellers' salaries and expenses, advertising and publicity of all kinds, branch warehouse and other of general administration expense, which includes general accounting, administration expense. The third item of cost is the division's share corporate expense and the officers of the company.

"We consider it a waste of time to distribute general administration expense over each department of the factory, over sales units and over branch houses. We simply recognize that there is general administration expense that is part of the general cost, and it is budgetted and controlled in relation to total factory production, as being a more level or steady operation than sales activity."

Company F

"Our organization is divided up into the following functions or departments:

1. Building Factor. This is divided over every other department on the basis of space occupied.
2. Power and Light. Distributed over other departments on the basis of horse-power or kilowatt hours, since every unit is individual-motor driven.
3. General Factory. This is distributed over the production departments only, on the basis of the amount of money budgeted to be spent in said productive departments.
4. Laboratory. Since the smaller part of the time spent is in testing raw material, we ignore it and charge the whole amount over the productive departments on the basis of the number of batches put through each department.

5. News Mixing. This is a productive department.
6. News Milling. This is a productive department.
7. Black Mixing. This is a productive department.
8. Black Milling. Productive department.
9. Color Mixing. Productive department.
10. Color Milling. Productive department.
11. Wet Ink Mixing. Productive department.
12. Shipping. In costing the individual invoices, this is combined with office and accounting, cost of cans, packing requirements and time occupied in wrapping and packing. In this way we obtain a charge per pound on each size of order and they are costed accordingly.
13. Office and Accounting. In costing, this is combined with shipping, for per pound and per order cost.
14. General Administration. This is distributed on a certain percentage upon the sale.
15. Sales Expenses. This is also costed out on a rate percent on the sale, as budgeted.

"Of course, it must be understood that we budget every department, thus controlling the expenditure each month of each department. The mixing department has a charge per mix for each batch, and the milling department has a mill-hour cost, based upon the number of hours budgeted for year. The wet ink mix department is credited each month with the budgeted or standard cost for the total of each size of mix, which is compared with the actual cost of maintaining the department, showing the standard gain or loss, as the case may be.

"Roughly, our distribution of the items mentioned in your request would be as follows:

1. President—50% general administration, 50% sales. Vice-President and Manager—One-third genral administration, one-third sales, one-third general factory.
2. Distributed under a packing, shipping and order cost.
3. Distributed under a packing, shipping and order cost.
4. Distributed under a packing, shipping and order cost.
5. General factory.
6. Included in office and accounting.
7. General factory.
8. General factory.
9. Included in building factor.
10. Included in general factory.
11. Space occupied and expenses in connection with raw material and stores is charged to the productive departments affected, such as news mixing, color mixing and wet ink mixing. The space occupied by stores of finished goods is charged to shipping department.
12. Charged to general factory."

Company G

This company reports item one distributed as follows: 60 per cent. administrative, 30 per cent. selling, and 10 per cent. manufacturing, following the practice of the United Typothetae of America. Items 2 to 8 inclusive, all charged to administrative.

Company H

"You will readily understand the distribution of expenses in our plant is somewhat different to the majority of other manufacturing companies, but for your information, in our particular case, we assemble our administration and sales expenses under various headings; included in these are general executive, affecting salaries and expens-

es of president and vice-president. Purchasing and accounting, which include general accounting, (including statistical and costs), accounts payable, accounts receivable, pay roll, and also an additional group called general, which covers such items that are common to all such as janitor, cleaners, telephone, telegraph, insurance, motor cars and various other small accounts.

"After collecting the above figures, we, in turn, pro-rate on a percentage basis to the total cost of shipments in that month and charge each order with its share of general expense.

"Regarding supplementary function affecting steam plant, mechanical and general maintenance, stores, janitors and watchmen, these are collected under such headings in our shop operating accounts, and are, in turn, closed out to the various departments, based on the direct labor in these particular departments."

CHAPTER NOTES

MONTREAL

Reported by R. Schurman, C.A., Secretary.

November 18

The members of the Montreal Chapter held their regular meeting on November 18th, in the Arts Building of McGill University, when Mr. A. N. Ste. Marie, assistant treasurer and manager public relations, Montreal Light Heat & Power Cons., delivered a lecture on the "Cost of Manufacture and Ultimate Delivery of Electric Power." Upwards of eighty members and friends were present. Mr. J. P. Masterson, C.G.A., our genial Chairman, presided.

Mr. Ste. Marie prefaced his remarks by explaining that he was neither an accountant nor an engineer. Before he concluded the lecture the members were quite prepared to admit that he showed exceeding familiarity with his subject, and in that particular branch of public utility enterprise, might qualify for either post; he explained that it was exceedingly difficult to compare a power cost with the cost of an ordinary industrial product, such as stockings or the many articles of production in which cost accountants were interested.

By means of an illustrated chart, Mr. Ste. Marie explained graphically the three general divisions making up the ultimate cost to the consumer of electricity, per K.W.H. These divisions were—(1) Generation; (2) Transmission; (3) Distribution.

(1) The generation cost comprised the storage basin, dam, turbine and mechanical unit for stepping up the power from low voltage to high voltage, preparatory to sending the "juice" through the transmission wires; the proportion of the consumer's cost as applied to this unit, was equal to 7%.

(2) Transmission costs included transmission right-of-way, transmission towers, lines and transformers. The interest on the capital investment, cost of upkeep, absorbed 14% of the ultimate consumer's rate.

(3) Distribution costs comprised the interest on the capital investment for the mechanical apparatus, for stepping down the power from high voltage to low; transformers; sub-stations; secondary lines and service lines, to the consumer's meter. This expense absorbed 79% of the ultimate cost.

The capital investment involved raising of money, construction work and other costs, equal to $125.00 per kilowatt. The transmission construction costs absorb $130.00 per kilowatt, and it was explained that the capital investment for distribution outlets, were equal to $43.00 per customer. This capital investment was not reckoned on a kilowatt basis. We were told that one kilowatt is about equal to 1 1/3 horsepower.

Mr. Ste. Marie used the blackboard freely during the delivery of his paper, explaining how he arrived at the various average costs, bringing the ultimate average cost to the consumer per K.W.H., of $3.46. Mr. Ste. Marie took occasion to explain that his Company, through the contribution of various taxes to federal and provincial governments, expended a sum equal to .39½c. per K.W.H., whereas provincial hydro-electric commissions did not contribute anything by way of taxes.

Following the lecture the members entered freely into discussion on the various points made by the speaker. Past-President Louthood, of the Beauharnois Corporation, moved the vote of thanks. Members and guests wore their name badges.

November 25.

Members of the Montreal Chapter, to the number of seventy-five, were treated to an exhibition of big business during a visit to the plants of the Canadian Copper Refineries Limited and the Canada Wire and Cable Company Limited, in Montreal East, on Friday, November 25th.

The trip proved both successful and interesting. The Chairman of the Chapter, Mr. J. P. Masterson, C.G.A., and H. W. Blunt, C.A., Chairman Publicity, assembled the members at Phillips Square, from which they were conveyed to the plants by Provincial Transport bus; a few went in private cars.

Mr. H. S. McNight, Manager of the Copper Refining Company, received the guests, and in company with other executives explained the various methods of purifying the ingot copper. Perhaps the chief attraction at the Copper Refining Plant, was that of pouring of the molten copper into the rotating moulds and forming the copper bars. This process held the attention of the visitors for a considerable time. Another group, with their guides, studied the electrolytic process, by which the gold and silver are separated from the copper.

Copper ingots were suspended in a series of tanks, containing a solution of copper sulphate and sulphuric acid, forming anodes. Thin sheets of pure copper were also suspended in the tanks, forming kathodes. The application of an electric current caused pure copper to be deposited on the kathode; any impurities passed into the solution and the silver and gold settled to the bottom of the tank, as a slime, out of which they were subsequently extracted. Copper ingots are received both from the Refinery at Noranda and from the Hudson Bay Mining and Smelting Company of Manitoba.

Following the inspection of the Copper Refinery, the members visited the plant of the Canada Wire and Cable Company, under the direction of Mr. W. P. Roper, District Manager. Mr. Roper, with his guides, explained the various methods by which the copper bars were converted or drawn into various sizes of wire and cable, by fast moving machinery.

The trip was exceedingly interesting, and so far has been one of the most instructive meetings of the year.

Buses and motor cars at the best are not particularly warm at this time of year, and Chairman Masterson very thoughtfully

brought along a number of heat units, which were very greatly appreciated.

VANCOUVER

Reported by Maurice Willis, Secretary

The second meeting of the Chapter was held in the Associated Dairies board room on November 8th at 8 p.m. when thirty people gathered around to listen to an address given by Mr. P. J. Salter, C.A., comptroller of the Vancouver Sun, on the subject "The Making of a Modern Newspaper."

Mr. Salter first started off by giving us figures showing the amount of newsprint used in the two Vancouver papers a year, the amount of timberland required to make this newsprint, also the number of employees, which is 1,000, being employed by these newspapers salaries being over $100,000 a month. When we had been shown what a huge industry the newspaper business was, our speaker then told us how the news was gathered and published. As we are unable to give all these particulars in detail we are hoping to see a copy of this address in Cost and Management at some future date.

As the Chapter held a sum of monies in trust for a library fund it was decided to form a committee to invest this fund into suitable books for the benefit of the members, the following were therefore elected: Messrs. T. P. Hill C. A., E. A. Cowley, and J. Harvey, C.A. The members of the Vancouver Chapter will therefore soon be able to use the library more extensively than has been done in the past.

THE TREND OF PRODUCTION COSTS

Commodity prices, as measured by the Dominion Bureau of Statistics index number which is based on the year 1926 declined from 66.9 in September to 65.0 in October. The following is a comparison by main groups:

	Oct. 1932	Sept. 1932	Oct. 1932
Foods, beverages and tobacco	65.6	61.8	60.7
Other consumers' goods	79.3	78.9	78.6
All consumers' goods	73.8	72.1	71.4
Producers' equipment	89.3	88.1	86.8
Building and construction materials	79.9	76.5	77.1
Manufacturers' materials	60.1	55.9	53.0
All producers' materials	63.7	59.6	57.4
All producers' goods	66.3	62.5	60.3
All commodities	69.9	66.9	65.0

The principal declines in October were in the following: Dried fruits, hides & skins, live stock, meats & poultry, raw cotton, silk hosiery, newsprint and lead. The principal advance during the month was in animal fats.

PERSONAL ITEMS

William Mason Howell, comptroller of the Mount Royal Hotel Company, Ltd., formerly with the Windsor Hotel Company, Ltd., and a member of our Society for several years past, died in Montreal on November 1st, in his 44th year. The late Mr. Howell was born in Poltimore, Que., and was educated in Ottawa. He served overseas

from 1916, and was gassed at Cambrai shortly before the Armistice.

Eugene E. Sparrow, of Imperial Varnish & Color Co. Ltd., Toronto, and a director of our Toronto Chapter, was elected president of the National Federation of Paint and Varnish Production Clubs at its annual meeting held in Washington on November 11th. Mr. Sparrow is a past president of the Toronto Paint & Varnish Production Club.

COST LITERATURE

RECEIVED IN NOVEMBER

RATE Making, Accountancy of. F. M. Harvey. Canadian Chartered Accountant, November.

Accountants' Time and Cost Records. D. Young. Canadian Chartered Accountant, November.

Municipal Accounting and Auditing. H. Pettit. Canadian Chartered Accountant, November.

Consolidated Balance Sheet, Preparation of. J. W. Taylor. Canadian Chartered Accountant, November.

Management Audit. T. G. Rose. Gee & Co. Ltd.

Retail Drapery Trade, Accounting in. Accountant in Australia, October.

Paint Stores, Accounting Procedure for Retail and Wholesale. H. C. Burton. American Accountant, November.

Rationalization, The Unemployment of. Bulletin of International Management Institute, October.

Ratios, Comparison of. P. J. Fitzpatrick. Certified Public Accountant, November.

Depreciation Reconsidered. Accountants' Journal, November.

Shoe Factory Inventory Items, Physical Check of. R. I. Glynn. National Association of Cost Accountants' Bulletin, November 1.

Newsprint Company, Cost Reports for a. H. E. Ticker. National Association of Cost Accountants' Bulletin, November 1.

Leather Goods Plant, Production Costs in. J. C. Connell. National Association of Cost Accountants' Bulletin, November 15.

Motor Buses, Property Records for. Thos. A. Dunbar. National Association of Cost Accountants' Bulletin, November 15.

NEW BOOKS

1932 Year Book, National Association of Cost Accountants. This year book reports the proceedings at the 13th annual conference of the National Association of Cost Accountants, held in Detroit last June. The topics of the six sessions were: Trend of Accounting in the Future Management of American Industry; Evolution and Basic Principles of Business Organization; Responsibility of the Accounting Department in Sales Activities; Responsibility of the Accounting Department in the Establishing of a Sound Financial Program; Relation of Accounting to Purchasing and to Product Engineering; How the Accounting Department Meets the Requirements of the Manufacturing Executive. The speakers included such well known men as T. H. Sanders, C. O. Wellington, Charles R. Landrigan, and J. P. Margeson. Each paper was followed by discussion which is reported in the Year Book. Numerous ilustrations are also included. The year-book is 320 pages, cloth-bound, and is priced at $3.

INDEX TO CONTENTS

Volume VII. January-December, 1932.

Subjects:—	Issue	Page
Administrative Expenses, Distribution of	December	373
Annual General Meeting	May	133
Automobile Assembly Costs & Financing Sales. *A. C. McAlpine*	September	277
Budgetary Control. *E. S. LaRose*	January	3
Budgetary Control. *E. S. LaRose*	February	34
Calendar, Changing the. *J. W. Spence*	April	113
Chapter Notes	Each Issue	
Cost Accounting at Montreal City Hall	October	319
Directors' Meeting in Toronto	May	133
Directors' Meeting in Toronto and Hamilton	October	316
Directors' Meeting in Montreal	November	349
Dominion Government Financial Control	November	342
Employee Shareholder Plan	October	314
Employment	July	218
Employment, A System of. *B. S. Lillie*	September	282
Examination Papers	November	344
Examination Results	October	316
Factory, Planning & Building of Modern. *W. Bruce Riddell.*	June	178
Farm Products, Cost of	June	189
Financial Statements, Construction & Interpretation of. *A. E. Nash*	September	258
Fire & Use & Occupancy Insurance. *A. J. Mylrea*	July	194
Four Week Periods for Railway Records	July	222
Group Incentives. *R. Presgrave*	June	184
Indirect Labor, Control of. *R. Presgrave*	August	226
Industrial Development, Some Aspects of. *J. M. Davidson*	September	266
Industrial Research. *S. Farquharson*	October	290
Insurance. *E. L. McLean*	April	98
Inventory Control. *R. Dawson*	October	306
Laundry Industry Today. *H. E. Holyoak*	July	213
London Life Planning Department	October	316
Metal Trades, Cost System for. *Norman Terry*	August	230
Montreal Tramways Contract. *Arthur DuPerron*	June	162
McGill University Evening Classes	January	32
New Members	Each Issue	
Newspaper, Cost of Publishing a. *W. McCurdy*	March	66
Opportunities for Canadian Industries. *W. T. Brickenden*	July	218
Personal Items	Each Issue	
Personnel in Industry. *J. E. MacPherson*	May	144
Population, Industries & Overseas Trade. *R. R. Thompson*	May	151
Production Costs, Trend of	Each Issue	
Punched Hole Method. *S. P. Mapes*	March	80
Recovery, The Prospect of. *D. M. Marvin*	August	247
Reference Literature	Each Issue	
Report of President & Directors	May	131
Sales Expense Ratios	March	89
Sales & Distribution Expense. *D. M. Farrish*	July	204
Sales Statistics. *M. L. Pierce*	August	238

Subjects:—	Issue	Page
Statistical Data & Reports for Management Control. *E. D. MacPhee*	May	135
Steel Canister Industry, Cost System for. *D. Peddie*	November	322
Steel Canister Industry, Cost System for. *D. Peddie*	December	354
Toronto Checks up on Accounting	November	343
Unemployment, Minimizing Evils of. *S. B. Cornell*	March	85
Uses of Costs. *W. A. McKague*	May	149
Wage Incentives. *G. W. Rice*	May	139
Wage and Salary Reductions	March	89
Workmen's Compensation Administration & Accounting. *O. E. Sharpe*	March	72

Authors:—	Issue	Page
Brickenden, W. T. Opportunities for Canadian Industries	July	218
Cornell, S. B. Minimizing Evils of Unemployment	March	85
Davidson, J. M. Aspects of Sound Industrial Development	September	266
Dawson, R. Inventory Control	October	306
DuPerron, Arthur. The Montreal Tramways Contract	June	162
Farish, D. M. Control of Sales & Distribution Expense	July	204
Farquharson, S. Industrial Research	October	290
Holyoak, H. E. Laundry Industry Today	July	213
Lillie, B. S. System of Guaranteed Employment	September	282
LaRose, E. S. Budgetary Control	January	3
LaRose, E. S. Budgetary Control	February	34
MacPhee, E. D. Statistical Data & Reports for Management Control	May	135
MacPherson, J. E. Personnel in Industry	May	144
Mapes, S. P. Punched Hole Method	March	80
Marvin, D. M. Prospect of Recovery	August	247
Mylrea, A. J. Fire & Use & Occupancy Insurance	July	194
McAlpine, A. C. Automobile Assembly Costs & Financing of Sales	September	277
McCurdy, W. Cost of Publishing a Newspaper	March	66
McKague, W. A. Uses of Costs	May	149
McLean, E. L. Insurance	April	98
Nash, A. E. Construction & Interpretation of Financial Statements	September	258
Peddie, Donald. Cost System for Steel Canister Industry	November	322
Peddie, Donald. Cost System for Steel Canister Industry	December	354
Pierce, M. L. Sales Statistics	August	238
Presgrave, R. Group Incentives	June	184
Presgrave, R. Control of Indirect Labor	August	226
Rice, G. W. Wage Incentives	May	139
Riddell, W. Bruce. Planning & Building of Modern Factory	June	178
Sharpe, O. E. Workmen's Compensation Fund Administration	March	72
Spence, J. W. Changing the Calendar	April	113
Terry, Norman. Cost System for Metal Trades	August	230
Thompson, R. R. Population, Industries & Overseas Trade	May	151